

In The Claims:

1. (Currently Amended) A method of controlling a vehicle with a trailer comprising:
determining a presence of the trailer;
determining a vehicle velocity;
determining a steering wheel angle;
determining a rear axle side slip angle of the vehicle; and
applying brake-steer to stabilize the vehicle and trailer when the rear axle slip angle is above a predetermined rear axle slip angle, the vehicle velocity is above a velocity threshold, and the steering wheel angle is about zero.
2. (Original) A method as recited in claim 1 wherein determining the presence of a trailer comprises determining the presence of a trailer with a hitch sensor.
3. (Original) A method as recited in claim 1 wherein determining the presence of a trailer comprises determining the presence of a trailer with a reverse aid sensor.
4. (Original) A method as recited in claim 1 wherein determining the presence of a trailer comprises determining the presence of a trailer with an ultrasonic sensor.
5. (Original) A method as recited in claim 1 wherein determining the presence of a trailer comprises determining the presence of a trailer with a camera.
6. (Original) A method as recited in claim 1 wherein determining the presence of a trailer comprises detecting a locating plate behind the vehicle.
7. (Currently Amended) A method as recited in claim 6 wherein the locating plate comprises a locating hole positioned along [[the]] a trailer tongue.
8. (Currently Amended) A method as recited in claim 1 wherein applying brake-steer comprises applying at least one brake at a first wheel ~~to reduce a vehicle turning radius.~~
9. (Currently Amended) A control system for an automotive vehicle and a trailer comprising:
means to determine the presence of the trailer;

a vehicle velocity sensor generating a vehicle velocity signal;
a steering wheel angle sensor generating a steering wheel angle signal; and
a controller coupled to the means, the velocity sensor and the steering angle sensor, said controller determining a rear axle side slip angle of the vehicle, and when the rear axle side slip angle is above a predetermined rear axle slip angle, the vehicle velocity signal is above a velocity threshold and the steering wheel angle is about zero, said controller programmed to apply brake-steer to the vehicle to stabilize the vehicle and trailer.

10. (Original) A system as recited in claim 9 wherein said means to determine the presence of a trailer comprises a hitch sensor.

11. (Original) A system as recited in claim 9 wherein said means to determine the presence of a trailer comprises a reverse aid sensor.

12. (Original) A system as recited in claim 9 wherein said means to determine the presence of a trailer comprises an ultrasonic sensor.

13. (Original) A system as recited in claim 9 wherein said means to determine the presence of a trailer comprises a camera.

14. (Original) A system as recited in claim 9 wherein said controller is programmed to brake-steer by applying a first brake and a second brake to reduce the turning radius of the vehicle.

15. (Currently Amended) A system as recited in claim 9 wherein said controller is programmed to brake-steer by applying at least one brake at a first wheel ~~to reduce a vehicle turning radius~~.

16. (Currently Amended) A system as recited in claim 9 wherein said controller is programmed to brake-steer by applying an increased drive torque to a second wheel relative to ~~[[the]]~~ a first wheel.

17. (Original) A control system as recited in claim 9 further comprising a steering wheel angle sensor generating a steering wheel angle signal, said controller programmed to apply brake-steer in response to a reverse direction signal and the steering wheel angle signal.

18. (Original) A control system as recited in claim 9 further comprising a yaw rate sensor generating a yaw rate signal, said controller programmed to apply brake-steer in response to a reverse direction signal and yaw rate signal.

19. (Original) A control system as recited in claim 9 further comprising a steering wheel torque sensor generating a steering torque signal, said controller programmed to apply brake-steer in response to a reverse direction signal and steering torque signal.

20. (Currently Amended) A control system as recited in claim 9 further comprising a ~~steering wheel angle sensor generating a steering wheel angle signal and a vehicle velocity sensor generating a vehicle velocity signal~~, said controller programmed to apply brake-steer in response to ~~[[the]]~~ a reverse direction signal, ~~[[and]]~~ steering wheel angle signal and vehicle velocity signal.

21. (Currently Amended) A method of controlling a vehicle with a trailer comprising:
determining a presence of the trailer;
determining a vehicle velocity;
determining a hand wheel angle position signal corresponding to an angle of the hand wheel angle position;
determining a sensor yaw rate from a yaw rate sensor;
calculating a hand wheel yaw rate based upon the hand wheel signal;
determining a rear axle side slip angle; and
applying brake-steer to the vehicle to stabilize the vehicle and trailer when the rear axle slip angle is above a predetermined rear axle slip angle, the vehicle velocity is above a velocity threshold, and the sensor yaw rate is diverging from the hand wheel yaw rate.

22. (Original) A method as recited in claim 21 wherein determining the presence of a trailer comprises determining the presence of a trailer with a hitch sensor.

23. (Original) A method as recited in claim 21 wherein determining the presence of a trailer comprises determining the presence of a trailer with a reverse aid sensor.

24. (Original) A method as recited in claim 21 wherein determining the presence of a trailer comprises determining the presence of a trailer with an ultrasonic sensor.

25. (Original) A method as recited in claim 21 wherein determining the presence of a trailer comprises determining the presence of a trailer with a camera.

26. (Currently Amended) A method as recited in claim 21 wherein applying brake-steer comprises applying at least one brake at a first wheel ~~to reduce a vehicle turning radius.~~